

CHANGE OVER TIME & CLASSIFICATION



EDITABLE student notebook pages - digital links included for students to complete guided notes on Google Drive

Question: Where did Darwin travel to where he observed many unusual organisms?

DARWIN'S THEORY OF EVOLUTION

Evolution – the process of change over time

In Darwin's travels aboard the HMS Beagle, which began in 1831, Charles Darwin made three important observations:

- The world includes a tremendous diversity of living things throughout a wide range of habitats
- Animal species, like those in the Galapagos Islands, that are related can have different characteristics or occupy different habitats in the same area
- Fossils – preserved remains of ancient organisms, resembled

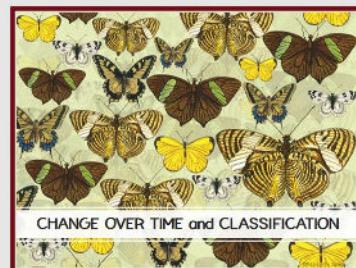
Darwin's observations led him to develop the scientific theory of evolution, which explains how modern organisms are more likely to survive and reproduce.

Adaptation – a trait that helps an organism survive and reproduce.

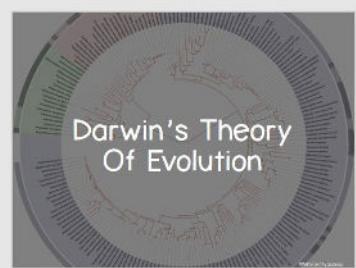
Natural selection – process by which their environment are more likely to survive and reproduce.

Factors that affect process of natural selection:

- Overproduction – species produce more offspring than can survive
- Variations – difference between individuals
- Competition – resources are limited



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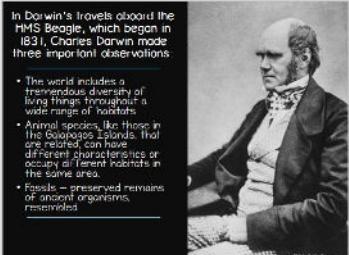


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EDITABLE PowerPoint presentations include high-resolution graphics and feature all topics and vocabulary covered in the notes



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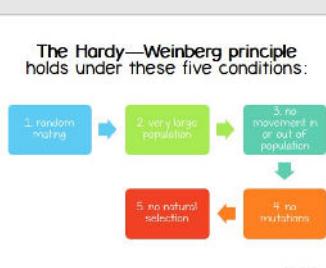
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CHAPTER TEST: Change Over Time and Evolution

Multiple Choice

Choose the answer that best completes each statement.

1. A species is a group of similar organisms that _____.
 a. can mate with each other and produce fertile offspring
 b. can live together on an island
 c. can migrate to an island from the mainland
 d. all have exactly the same traits

2. What are Fossils?
 a. molds and casts of organisms that live today
 b. drawings of organisms
 c. footprints of organisms
 d. the preserved remains of organisms

3. How do most Fossils form?
 a. An insect bites
 b. An entire organism
 c. A dead organism
 d. A dead organism

4. Which term indicates that an organism is
 a. molded
 b. Fossilized
 c. extinct
 d. petrified

5. What did Darwin observe?
 a. Teal feathers
 b. Their bodies were similar
 c. They had identical traits
 d. They had different traits

6. A trait that helps an organism
 a. reproduce
 b. survive
 c. adapt
 d. variation

7. Which terms indicate environment are
 a. natural selection
 b. overproduction
 c. competition
 d. variation

Complete the sentence.

21. Gradual change in a species over time is called _____.

22. An empty space called _____ dissolves.

23. The largest span of time is the _____.

24. Mushrooms, molds, and yeasts are _____.

25. Archaea and Bacteria are _____.

26. In the process of natural selection, _____ environments are most important.

Complete the sentence.

EDITABLE Chapter test includes multiple choice, fill in the blank, interpreting diagrams, & short Answers questions

26. An organism's scientific name consists of _____.

 a. its class name and its Family name
 b. its Kingdom name and its phylum name
 c. its genus name and its species name
 d. its phylum name and its species name

27. The more classification levels that two organisms share, _____.

 a. the closer together on Earth they live
 b. the easier it is to tell them apart
 c. the more characteristics they have in common
 d. the more distantly related they are

28. One characteristic used to place organisms into Kingdoms is _____.

 a. how they move
 b. where they live
 c. their ability to make food
 d. their ability to reproduce

29. Which group of organisms is a kingdom?

 a. protists
 b. bacteria
 c. plants
 d. animals

30. Which Kingdoms include _____.

 a. Fungi and plants
 b. Fungi and protists
 c. protists and animals
 d. protists and plants

27. The _____ of a radioactive element is the time it takes for half of the atoms in a sample to decay.

28. A structural adaptation enabling an organism to blend in with its environment is _____.

29. The first word in an organism's scientific name is the _____.

Interpreting Diagrams

Use the diagrams to answer each question.

Organism	House cat	Red Fox	Dog	Wolf	Sheep	Pig
Kingdom	Animalia	Animalia	Animalia	Animalia	Animalia	Animalia
Phylum	Chordata	Chordata	Chordata	Chordata	Chordata	Actinopoda
Class	Mammalia	Mammalia	Mammalia	Mammalia	Mammalia	Cetacea
Order	Carnivora	Carnivora	Carnivora	Carnivora	Artiodactyla	Dipatra
Family	Felidae	Felidae	Canidae	Canidae	Capromyidae	Procavia
Genus	Felis	Felis	Canis	Canis	Capromys	Sus
Species	F. domesticus	F. lycaon	C. lupus	C. lupus	F. aries	F. domesticus

31. Using the table above, how is a dog more closely related to a red fox than a house cat?

32. At what level does the relationship between gophers and house cats diverge?

33. Which two animals are most closely related? Explain.

Answer key included – Images are blurred for copyright reasons



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